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ABSTRACT

This paper describes the Maine Consumer Information and Technology Training Exchange (Maine CITE) project designed to increase the availability and use of assistive-technology to Maine people with disabilities. Maine CITE is a 3-year project supported by the Maine Department of Education, Division of Special Education, with a grant from the National Institute on Disability and Rehabilitation Research, U.S. Department of Education. The Maine CITE project staff worked cooperatively with the staff of the University of Maine at Augusta to produce programs for school-age children with disabilities for broadcast over the interactive television system (ITV). The nine ITV sites used by Maine CITE are video and audio interactive, meaning all participants can see and hear one another. Videotapes were developed from tapes of most live ITV programs for later broadcast on cable stations and for organizational use. These videotapes helped reach the disabled and the general public. Three of Maine CITE's programs were operated in collaboration with the Maine Parent Federation/Special-Needs Parent Information Network (SPIN). These programs allowed parents and children to become familiar with the interactive television systems and learn about recent technology and available toys and recreational devices. In its first year approximately 1,400 people participated in the 10 programs presented by Maine CITE. The participants found the ITV model to be an effective delivery system for accessing new information. A table is included representing the kinds of programs developed for various audiences. (LP)

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ACRES PRESENTATION
Presenter: David Noble Stockford
Co-Presenter: Kathleen Powers
Barbara Keefe
Day: March 19, 1991
Time: 4:00pm - 5:00pm

Maine CITE: Technology Collaboration through Distance Learning

RC 018496

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MAINE CITE: TECHNOLOGY COLLABORATION THROUGH DISTANCE LEARNING

RC 018496

Overview

The Maine Consumer Information and Technology Training Exchange (Maine CITE) is a three-year project supported by the Maine Department of Education, Division of Special Education with a federal grant from the National Institute on Disability and Rehabilitation Research, U.S. Department of Education. Maine CITE is designed to increase the availability and use of assistive technology to Maine people with disabilities. It serves people of all ages and crosses disabilities. This paper will focus on the effective use of programming delivered by using the University of Maine's interactive television system with a school-age population.

The presentation will also describe the process of team building and technology collaboration that happens when broadcast programs are put together for using this delivery model.

Maine is the largest of the New England states with the lowest density of population east of the Mississippi River. Nearly 1.2 million people live in Maine, 70 percent of whom live in rural communities of less that 10,000 people. The Department of Education reports 27,074 children with disabilities among

Maine's school-age population, ages 5-20. The Bureau of Rehabilitation estimates 63,655 adults, age 22 years and above, (approximately 10% of the adult population), have a disability limiting a major life activity. In some remote areas of Maine telecommunications is the only means of delivering scarcely available courses and workshops to students, parents, professionals and parents.

Maine's Interactive Television System

The Maine CITE project works cooperatively with the University of Maine at Augusta's staff to help produce its programs over the interactive television system.

Maine's interactive television (ITV) is the most comprehensive terrestrial system in the country. A two-way audio and visual fiberoptic spine, leased from New England Telephone, connects electronic classrooms located at each of the University of Maine System campuses. From each campus, the classroom signal is broadcast via point-to-point microwave to an ITFS microwave transmitter onto multiple receive antennae at the various receive sites. Distances as great as 400 miles might separate presenters, facilitators, and participants. Because the signal can be transmitted from each campus throughout its own geographical region or throughout the entire state, the ITV system proves efficient and cost effective.

People at remote ITV classrooms are connected to presenters who are simultaneously presenting to a "live" classroom of people

on campus. In this electronic classroom one camera focuses on the presenters, while another scans other visual material. The presenters and visual images are electronically "transmitted" to the remote sites where the participants can see and hear the presenters on television monitors. An audio talk-back system permits people in these distant locations to interact with the presenters and with other participants.

ITV technology links these people, generating an interaction allowing persons with low incidence disabilities to probe participants across the state immediately for ideas and answers that might not have been available in their area, increasing the amount of receivable information.

Prerequisite to System Use

Seventy-seven sites are capable of receiving programs statewide over the University's comprehensive ITV system. Maine CITE uses only nine of the ITV sites. The nine sites are video and audio interactive, meaning all participants can see and hear one another. In general, the criteria for selecting the sites has been "complete access" according to the ANSI standard for buildings. Maine CITE uses only locations meeting those standards. We are currently developing a comprehensive plan to assist other sites in meeting access requirements.

Educational access was another driving principle for training. All Maine CITE programs are captioned for people who are

hearing impaired and are available in audio and videotape free of charge through the Maine State Library. Interpreters are secured for anyone requesting one at their site.

Program Planning

All Maine CITE broadcasts adhere to the following guidelines. We consider users of assistive technology the "experts"; their expertise is called upon for each program. Programs are developed and presented in collaboration with one or more organizations. Print materials that are needed for the actual program are mailed to the various facilitators statewide one week prior to the program broadcast. Information is available in large print, braille, or audiotape.

Facilitators are used at all ITV receive sites. People with disabilities or parents of children with disabilities again are the preferred facilitators.

Original videotapes are developed for most live ITV programs, and are either aired later on cable stations or shown internally in organizations. These videos help us reach thousands of people with specific disability issues as well as the general public.

Collaboration

Three of Maine CITE's programs were done in collaboration with the Maine Parent Federation/Special-needs Parent Information

Network (SPIN): "Kid To Kid I and II," which focus on technology; and "Toy and Recreation Fair." These programs allowed parents and children to become familiar with the Interactive Television System and its use. The experience proved to have mutual benefit. Although it is hard to evaluate a collaborator's appreciation for the ITV as a new delivery model, it is important to note that the Maine Parent Federation/SPIN has budgeted $1000 for use of the System in the coming year.

Collaborators plan agendas, design program formats, identify target audiences and supply some of the material that is distributed in information packets the day of the program. Collaborators are not just participants in the planning process; people with disabilities, parents and professionals are partners in the presentation of the information as well.

Planning meetings are held over the ITV system when program presenters are geographically dispersed. Program presenters might be separated by distances ranging from two hundred to four hundred miles.

Because Maine CITE uses the interactive television system, the power of the technology to link people and generate interaction emerges during the question and answer period of each program. A consumer in Machias might be asked a question by a person in Farmington, (a three-hour drive away). The person in Farmington might refer the question to a person in Presque Isle, (a seven-hour drive away).

The electronic classroom connects people from the isolated, northern farmlands of Aroostook County to the tiny islands off the coast of Maine.

Summary

Maine CITE and its partners are excited about the emerging potential of ITV and other technologies to reach individuals who might otherwise have no access to information and services. Overwhelmingly, participants found the ITV model to be an effective delivery mechanism for accessing new information.

Approximately 1400 people participated in the ten programs presented by Maine CITE in its first year. The following matrix represents the kinds of programs developed for various audiences.

Maine CITE
Interactive Television Programs

PROGRAM	TOPIC	VIDEOS PRODUCED	AUDIENCE	COLLABORATORS
2/14/90 KID TO KID I	Demonstration of children using augmentative communication devices	An interview with Larry Harvey	Children, parents, teachers: occupational therapists, speech/ language pathologists	Parents, Maine Parent Federation & SPIN
2/27/90 KID TO KID II	Demonstration of children using assistive devices	An interview with Larry Harvey	SAME AS ABOVE	SAME AS ABOVE
3/30/90 OPENING THE DOOR	A forum on barrier-free environment	An access tour of Augusta City Hall with Ron Hanson	Architects, code enforcement officers, University facility managers and people with disabilities	Alpha One, Center for Independent Living
4/27/90 ENGINEERING FOR DISABILITIES	Demonstration of adaptations	---	People with disabilities occupational and physical therapists, engineers and inventors, vocational rehabilitation and independent living counselors	Department of Human Services, Bureau of Rehabilitation
6/29/90 IN THE DRIVER'S SEAT	Driver assessment and education program for people with disabilities	Alpha One Driver Assessment and Ecuration Program	People with disabilities, vocational rehabilitation and independent living counselors, driver education teachers, occupational and physical therapists	Alpha One, Center for Independent Living
9/15/90 TECHNOLOGY SOLUTIONS	Statewide discussion among people who use assistive technology, telling of adaptations they find useful	From the kitchen of Leigh Phillips	People with disabilities, vocational rehabilitation and Independent Living counselors, parents	Maine Independent Living Services, Department of Human Services, Bureau of Rehabilitation
10/27/90 TOY AND RECREATION FAIR	Demonstration of various adapted toys and recreational devices	Ricky and his dad play Nintendo, Muppet Keyboard, Carl's Great Bike	Parents, children with disabilities, special education teachers, occupational and physical therapists	Maine Parent Federation/SPIN
12/14/90 ASSISTIVE TECH FOR PEOPLE WHO ARE DEAF AND HARD OF HEARING	Demonstration of old and new assistive technology and services	Assistive Communications Lab at Gov. Baxter School	People with hearing impairments, teachers, vocational rehabilitation counselors	Gov. Baxter School for the Deaf, Bureau of Rehabilitation
1/11/91 COMPUTER ASSISTIVE TECHNOLOGY FOR THE BLIND & VISUALLY IMPAIRED	A panel of consumers discussing different output modes	Tour of the Computer Assistive Technology Center at Maine Center for the Blind, Peter Blouknouski at UMUN. Returning to School: Vernon Peacock	People who are blind and visually impaired, employers, vocational rehabilitation and Independent Living counselors	Division of the Blind and Visual Impairment Maine Center for the Blind and Visually Impaired, National Federation of the Blind of Maine, American Council of the Blind of Maine
Planning for assistive technology conference consumer forum	Content planning for 1991 technology conference		People with disabilities	NILS, Alpha One, MADSEC, SPIN, Division of the Blind and Visually Impaired

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